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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/602,216

06/24/2003

Hiroko Suzuki

AD 6892 US NA

2243

23906

7590

12/15/2006

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1128  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/602,216	<b>Applicant(s)</b> SUZUKI ET AL.	
	<b>Examiner</b> Norca L. Torres-Velazquez	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18,20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Claim 19 has been cancelled. Claims 18 and 20 are pending and Applicants have amended independent claim 18 to now recite "*and another hot melt adhesive layer attached on a surface of either the fabric side or the film side, which is to laminate with another fabric or base materials, but which covers less than the full surface thereof*"; and also to claim ranges of water vapor transmission rate, air permeability and water pressure resistance of the interlining. Applicants cite page 3, lines 13 to 20, and page 8, line 28 to page 9, line 2 for support of the additional adhesive layer. The examiner reviewed the cited passages for support of the amendment of the claim and notes that page 3 discloses that the interlining can be laminated to another fabric by hot press and that the citation on pages 8-9, describes the formation of laminated sheets forming the interlining and the use of hot melt adhesive in their formation. There is not description of having an additional layer of hot melt adhesive attached on a surface of the fabric or film side of the interlining, therefore, the Examiner considers the this limitation as being new matter.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 18 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As described in paragraph 1 above, the disclosure fails to show an interlining having an additional layer of hot melt adhesive attached on a surface of the fabric or film side of the interlining.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSTAPCHENKO (US 4,725,481) in view of LIM et al. (US 6,187,696 B1).**

OSTAPCHENKO is directed to breathable fabrics. The reference teaches the use of an elastomer film material with formula similar to the one of the present invention. (Refer to abstract) Further the reference teaches melt bonding or adhesive bonding a textile material such as a nonwoven to the film. The textile materials used are polyethylene terephthalate or polyamides. (Refer to Col. 10, lines 39-65) The water vapor transmission rate of the OSTAPCHENKO materials read on the presently claimed range of 1000 to 20000 g/m<sup>2</sup> 24 h. (Refer to Example 2)

While OSTAPCHENKO teaches the use of adhesive bonding to bond a nonwoven to the film, it is silent to the use of a hot melt adhesive.

LIM et al. is directed to a moisture vapor permeable, substantially liquid impermeable composite sheet material comprising a fibrous substrate and a moisture vapor permeable

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thermoplastic film layer. (Abstract) The preferred film is a polyether block copolymer such as copolymers comprised of block co polyether esters. (Refer to Col. 5, lines 7-10) The preferred nonwoven material for the fibrous substrate is a fibrous polyolefin nonwoven web. The reference also teaches the use of blends of polyolefin and polyester fibers such as polyethylene terephthalate. And the reference further teaches that polyamides can be used as the synthetic polymer of the nonwoven. (Refer to Col. 5, lines 36-59 and Col. 6, lines 4-6) LIM et al. teaches that the adhesive is applied to the surface of the fibrous substrate to which the moisture vapor permeable film is to be attached prior to application of the film. The adhesive is preferably applied to the substrate in a dispersed spray pattern and the applied adhesive cover less than 75% of the surface of the fibrous substrate so that the film layer coated over the adhesive will be discretely bonded to the fibrous substrate and the adhesive will not significantly reduce the moisture vapor transmission rate of the composite sheet. (Col. 7, lines 12-25) LIM et al. further teaches that the preferred adhesive is a pressure sensitive hot melt adhesive. (Col. 7, lines 41-48) With regards to the use of another hot melt adhesive layer attached on a surface of the fabric or film, which is to laminate with another fabric or base material; it is noted that on Fig.2 LIM et al. shows an embodiment in which a fabric 16 is laminated by hot melt adhesive. (Refer to Col. 5, lines 2-6)

Since both references are directed to moisture vapor permeable, liquid impermeable composite sheet materials, the purpose disclosed by LIM et al. would have been recognized in the pertinent art of OSTAPCHENKO.

OSTAPCHENKO discloses the claimed invention except that it broadly teaches adhesive bonding instead of hot-melt adhesive, LIM et al. shows that hot-melt adhesives are structures

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known in the art of moisture vapor permeable, liquid impermeable composite sheet materials. Therefore, because hot-melt adhesives were art-recognized adhesives at the time the invention was made, one of ordinary skill in the art would have found it obvious to use a hot-melt adhesive in the lamination of the film structure of OSTAPCHENKO with a nonwoven textile material.

Although OSTAPCHENKO does not explicitly teach the claimed air permeability, and water pressure resistance it is reasonable to presume that these properties are inherent to the material of OSTAPCHENKO. Support for said presumption is found in the use of like materials (i.e. similar composition of film, laminated by an adhesive to a nonwoven). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of air permeability and water pressure resistance claimed herein would obviously have been present once the product of OSTAPCHENKO is modified as described above by the teachings of LIM et al. is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

**6. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over VROUENRAETS et al. (US 4,493,870) in view of LIM et al. (US 6,187,696 B1).**

VROUENRAETS et al. is directed to a flexible layered product for use in waterproof garments of a textile material covered with a waterproof material having a water vapor transmission rate of at least 1000 g/m<sup>2</sup> day. (Abstract) The reference teaches using fabrics based on polyethylene terephthalate. (Col. 2, lines 39-42) The film is a co-polyether ester consisting of a plurality of recurrent intralinear long-chain ester units and short-chain ester units, which are randomly joined head-to-tail through ester bonds. The long-chain ester units and short-chain ester units formulas are similar to the ones of the material of the present invention. (Refer to

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Col. 1, lines 53 through Col. 2, lines 1-29) The reference further teaches that the co-polyester film may be attached to the porous textile material in various ways, which may include a heat treatment, sewing or the use of an adhesive. (Col. 5, lines 67 bridging to Col. 6, lines 1-7)

Since both references are directed to moisture vapor permeable, liquid impermeable composite sheet materials, the purpose disclosed by LIM et al. would have been recognized in the pertinent art of VROUENRAETS et al.

VROUENRAETS et al. discloses the claimed invention except that it only teaches adhesive bonding instead of hot-melt adhesive, LIM et al. shows that hot-melt adhesives are structures known in the art of moisture vapor permeable, liquid impermeable composite sheet materials. Therefore, because hot-melt adhesives were art-recognized adhesives at the time the invention was made, one of ordinary skill in the art would have found it obvious to use a hot-melt adhesive in the lamination of the film structure of VROUENRAETS et al. with a nonwoven textile material. With regards to the use of another hot melt adhesive layer attached on a surface of the fabric or film, which is to laminate with another fabric or base material; it is noted that on Fig.2 LIM et al. shows an embodiment in which a fabric 16 is laminated by hot melt adhesive. (Refer to Col. 5, lines 2-6)

Although VROUENRAETS et al. does not explicitly teach the claimed air permeability and water pressure resistance it is reasonable to presume that these properties are inherent to the material of VROUENRAETS et al. Support for said presumption is found in the use of like materials (i.e. similar composition of film, laminated by an adhesive to a nonwoven). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of air permeability and water pressure resistance claimed herein

would obviously have been present once the product of VROUENRAETS et al. is modified as described above by the teachings of LIM et al. is provided. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

***Response to Arguments***

7. Applicant's arguments filed October 4, 2006 have been fully considered but they are not persuasive.

a. Applicants argue that the primary reference of Ostapchenko does not suggest the interlining which is formed by a combination of the nonwoven with the film bonded together by a hot melt adhesive layer and has another hot melt adhesive which is to be laminated with another fabric or base material as claimed herein.

It is noted that the use of a hot melt adhesive would have been obvious in view of the teachings of LIM et al., further LIM et al. teaches using an additional layer of hot melt adhesive to attach an additional fabric as shown in Fig. 2. Since both reference are analogous art, the teachings of LIM et al. would have been recognized in the art of Ostapchenko.

b. Applicants further argue that Ostapchenko does not disclose the same combination as does applicant, referring to the structure of Ostapchenko being a combination of two different elastomers that the present interlining does not contain and certainly do not require.

It is noted that the composition of Ostapchenko uses an elastomer film material with formula similar to the one of the present invention and provides similar WVTR properties of the present invention. It is noted that the claimed invention as claimed is an

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open-ended claims that does not preclude the inclusion of other materials. It is the Examiner's position that the prior art of record does read on the claimed invention.

c. The rejections over Vrouenraets et al. in view of Lim et al. are maintained herein as the rejection provides a similar structure to that claimed in the present invention. Applicants arguments indicating the product disclosed is not an interlining are noted, however, it is noted that this is considered an intended use of the invention not a structural limitation of the product.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

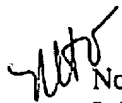
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Norca L. Torres-Velazquez  
Primary Examiner  
Art Unit 1771

December 11, 2006